

Translation

PATENT COOPERATION TREATY

PCT/JP2003/012315



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference JRISO-79-PCT	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2003/012315	International filing date (day/month/year) 26 September 2003 (26.09.2003)	Priority date (day/month/year) 27 September 2002 (27.09.2002)
International Patent Classification (IPC) or national classification and IPC B41F 23/04, B41L 23/20, B41J 2/01		
Applicant RISO KAGAKU CORPORATION		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☐ (sent to the applicant and to the International Bureau) a total of \_\_\_\_\_ sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☒ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☒ Box No. VIII Certain observations on the international application

Date of submission of the demand 12 February 2004 (12.02.2004)	Date of completion of this report 02 June 2004 (02.06.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/012315

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ The international application as originally filed/furnished
- ☐ the description:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the claims:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the drawings:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## Box No. IV Lack of unity of invention

1. ☐ In response to the invitation to restrict or pay additional fees the applicant has:
- ☐ restricted the claims.
  - ☐ paid additional fees.
  - ☐ paid additional fees under protest.
  - ☐ neither restricted nor paid additional fees.
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

Claims 1-15 pertain to a fixing device for curing and fixing a light-curing ink that is printed on a recording surface of a recording medium.

Claim 16 pertains to a printing device for transferring to a recording surface of a recording medium a light-curing ink that has an image on the outer peripheral surface of a fixing body, while at the same time curing and fixing the light-curing ink that has been transferred to the recording surface of the recording medium.

Therefore, the two inventions cannot be said to form a single general inventive concept.

4. Consequently, this report has been established in respect of the following parts of the international application:

☒ all parts.

☐ the parts relating to claims Nos. \_\_\_\_\_

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	2-5, 9, 10, 12, 13	YES
	Claims	1, 6-8, 11, 14-16	NO
Inventive step (IS)	Claims	4, 5, 12, 13	YES
	Claims	1-3, 6-11, 14-16	NO
Industrial applicability (IA)	Claims	1-16	YES
	Claims		NO

**2. Citations and explanations (Rule 70.7)**

Document 1: Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 187281/1982 (Laid-open No. 90422/1984) (Toyo Shigyo Printing Co., Ltd.), June 19, 1984

Document 2: JP 2001-179960 A (Canon Inc.), July 3, 2001

Document 3: JP 05-024222 A (Fuji Photo Film Co., Ltd.), February 2, 1993

Document 1 (page 4, line 7 to page 5, line 12) describes the inventions relating to claims 1, 6-8, 11, 14 and 15; therefore, these inventions do not appear to be novel or to involve an inventive step.

Document 3 (column 3, line 33 to column 5, line 10) describes the invention relating to claim 16; therefore, the invention does not appear to be novel or to involve an inventive step.

The inventions relating to claims 2 and 3 do not appear to involve an inventive step based on document 1. In document 1, because fixing on the entire recording medium surface is a usual selection by a person skilled in the art, it would be obvious for a person skilled in the art to make the full length of the rotation axis direction of a fixing body and carrier equal to or greater than the width of a recording medium. Further, cycle rate of the fixing body and the carrier is a matter that a party skilled in the art can set as appropriate in accordance with required carrier efficiency and fixability; it would be easy for a person skilled in the art to conceive of making the cycle rate of the fixing body and the carrier equivalent to the carrier speed of the carrier.

The invention relating to claim 9 does not appear to involve an inventive step based on documents 1 and 3. Document 2 (column 2, lines 15-18) describes the point of providing drive means on a fixing body, and it would be obvious for a person skilled in the art to conceive of adopting the matters described in document 2 to the fixing body described in document 1.

The invention relating to claim 10 does not appear to involve an inventive step based on document 1. Document 1 describes the point of light-curing ink being an ultraviolet ray curing ink. A radical polymer ink is an ink very commonly used as an ultraviolet curing ink, and using a radical polymer ink in the invention described in document 1, would be obvious to a person skilled in the art.

None of the documents cited in the ISR describes the inventions relating to claims 4, 5, 12 and 13, nor are they obvious to a person skilled in the art.

**Box No. VIII Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The description in claim 16 is not clear. Namely, claim 16 cites claim 15, and describes "said printing part" and "said fixing body"; however, because the "printing part" and "fixing body" described in claim 15, and the printing part" and "fixing body" described in claim 16 are members with different functions, it is not clear to what extent claim 16 cites claim 15.